

UVSTIG

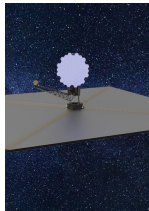
(Ultraviolet Visual Science and Technology Interest Group)

- Community Mission

- Track new science opportunities enabled by new technologies and mentor the next generation of scientifically and technically adept leaders in their development
- Identify component technologies ready for systems maturation by strategic missions
- Participate in NASA Technology Gap Prioritization Process
 - (bi-annually)
- Track Science Gap Identified by COPAG Science Interest Groups
 - Science interests span Cosmic Origins, Time Domain, Exoplanets, Physics of Cosmos
- QUEST Seminar (monthly-ish)
 - (Quorum for Uv/Vis Exploration of Sci and Tech)
- Organize AAS Splinter Sessions

- UVSTIG Organizers

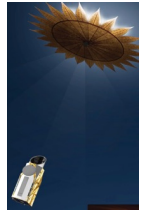
- Tumlinson, McCandliss
- Youthful Energy Welcome



The **Ultraviolet/Visual** Science Interest Group of the Cosmic Origins Program Analysis Group (**UVSTIG** – COPAG)
Invites you to attend the AAS 241 Splinter Session in Seattle on

Science and Technology Tradespace for the **Habitable Worlds Observatory**: Working Towards a Design Reference Architecture

Tuesday 13:30 – 15:30 PST 10 January 2023 – Rm 211



Topics	Speakers	Time (talk+ques)
Decadal Science Goals	Jason Tumlinson	13:30 – 13:35 (5)
Telescopes	Lee Feinberg	13:35 – 13:50 (12+3)
Coronagraphs	Emiel Por, Bertrand Mennesson	13:50 – 14:10 (16+4)
High-Def Imager/Workhorse Camera	Shouleh Nikzad	14:10 – 14:23 (10+3)
Multi-Object Spectrographs	Kevin France	14:23 – 14:36 (10+3)
Star Shades	Aki Roberge, Scott Gaudi	14:36 – 14:49 (10+3)
Workforce Development	Rachael Beaton	14:49 – 15:02 (10+3)
GOMAP Process	Julie Crooke	15:02 – 15:15 (10+3)
Open Discussion	All present	15:15 – 15:30 (15)

Virtual Attendance Via Webex (no AAS registration necessary)

<https://nasaenterprise.webex.com/nasaenterprise/j.php?MTID=m2f42a1bf04af3d1f4651db0a70aafd0c>

Meeting number: 2762 618 5642 Password: NASA_AAS23_Sig!

NASA COPAG AAS241 activities can be found at https://cor.gsfc.nasa.gov/copag/AAS_Jan2023/

The highest priority of the Astro2020 Pathways to Discovery was recommendation of a large (~6m diameter) near Infrared, Optical, Ultraviolet Space Telescope (newly christened - **Habitable Worlds Observatory** - HWO) to be fielded sometime in the 2040's for the purpose of understanding how, when and where life emerges throughout the cosmos. The instruments for such an ambitious mission include: a **Coronagraph** -- for assessing the planetary population in the local solar neighborhood; a **Multi-Object Spectrograph** -- for surveying a diversity of Milky-Way and extra-galactic environments for the dispersion of metals and radiation that can support or inhibit life as we know it; and a **High-Definition Imager** -- for surveys of similarly diverse environments at coarser spectral resolution, but deeper sensitivity. Each instruments seeks to maximize wavelength coverage from the **far-UV** to the **near-IR**. Quantifying how technical choices, such as effective focal ratio, the number of and shape of primary segments, mirror coating bandpass, number of bounces, wavefront control systems, detector dimensions/sensitivity, etc ... will impact the science yielded by the overall system, is a necessary preliminary step towards defining the architecture of a Design Reference mission. The speakers have been asked to articulate their technical "tall-poles", gauge potential impact on science, and estimate requirements for workforce development.

This session is intended to bring the systems engineering tradespace dialog to the community and begin the work towards a consensus on early technical maturation priorities for GOMAP that will maximize the science return of HWO. The organizers have made a concerted effort to assemble a diverse set of presenters and to reach the general membership of the AAS for an inclusive audience.